Reviewer’s report

Title: Prognostic parameters for recurrence of papillary thyroid microcarcinoma

Version: 3 Date: 17 June 2008

Reviewer: Leslie W Huson

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Major Compulsory Revisions

Table 1 - comparison of baseline clinical characteristics.

The statistical significance tests in Table 1 are presumably based on the null hypothesis that the distributions of the numbers of patients with given characteristics various be equal/proportional between the categories compared. But is such a null hypothesis justifiable in terms of clinical expectations? The authors should state why they think this is an appropriate null hypothesis to test.

Why does the number of 307 patients referred to at the beginning of the Results section reduce to 306 at the start of the section headed "Clinical characteristics of patients with recurrence".

And why were only 293 of the these 306 patients "eligible for analysis" - please state reason why 14 patients were excluded from analysis.

Again in Table 3 we need an explanation of why the null hypothesis - which is presumably that equal recurrence is expected in the categories of patient that are defined, is a reasonable thing to test for these categories. Why, for example, split age into <=45/>45 yrs?

Also, the Kaplan-Meier method compares "time-to-event", so to put K-M p-values alongside simple tabulations of rates of recurrence is potentially misleading - the p-value is comparing time-to-recurrence and not rate of recurrence. So perhaps this table should be amended to show median times to recurrence as well as rates of recurrence, with a footnote to emphasise that the p-value refers to a comparison of times and not rates.

Similar considerations apply to Table 4. Generally - avoid confusion between "rate of recurrence" and "time-to-recurrence".
A summary table of odds-ratios for the logistic analysis should be presented.
The simple discussion in the text is not sufficient